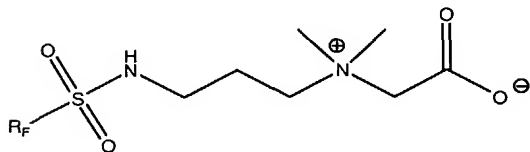


CLAIMS

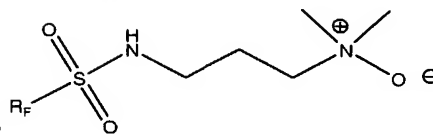
What is claimed is:

1. An Aqueous Film Forming Foam formulation comprising R_F - Q_s , wherein:
 R_F has a greater affinity for a first part of a system having at least two parts than Q_s ;
 Q_s has a greater affinity for a second part of the system than R_F ; and
 R_F comprises at least two $-CF_3$ groups and at least two hydrogens.
2. The formulation of claim 1 wherein R_F is hydrophobic relative to Q_s .
3. The formulation of claim 1 wherein Q_s is hydrophilic relative to R_F .
4. The formulation of claim 1 wherein R_F is hydrophobic and Q_s is hydrophilic.
5. The formulation of claim 1 wherein R_F comprises at least one $-CH_2-$ group.
6. The formulation of claim 1 wherein R_F comprises at least one cyclic group.
7. The formulation of claim 6 wherein the cyclic group comprises an aromatic group.
8. The formulation of claim 1 wherein R_F comprises at least one $(CF_3)_2CF-$ group.
9. The formulation of claim 1 wherein R_F comprises at least three $-CF_3$ groups.
10. The formulation of claim 1 wherein R_F comprises at least two $(CF_3)_2CF-$ groups.
11. The formulation of claim 1 wherein R_F comprises at least four carbons and one of the four carbons comprises a $-CH_2-$ group.

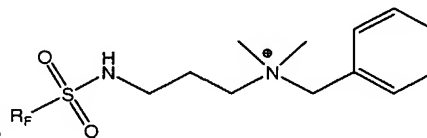
12. The formulation of claim 1 wherein R_F - Q_s is



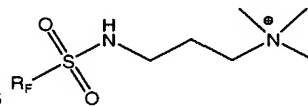
13. The formulation of claim 1 wherein R_F-Q_s is



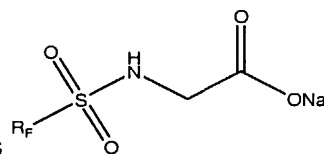
14. The formulation of claim 1 wherein R_F-Q_s is



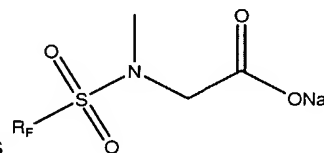
15. The formulation of claim 1 wherein R_F-Q_s is



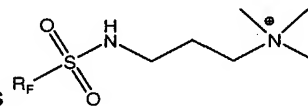
16. The formulation of claim 1 wherein R_F-Q_s is



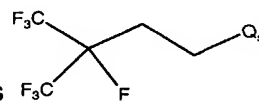
17. The formulation of claim 1 wherein R_F-Q_s is



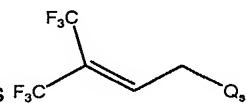
18. The formulation of claim 1 wherein R_F-Q_s is



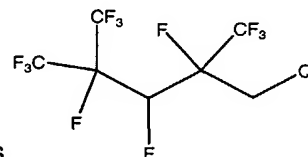
19. The formulation of claim 1 wherein R_F-Q_s is



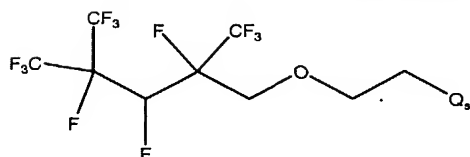
20. The formulation of claim 1 wherein R_F-Q_s is

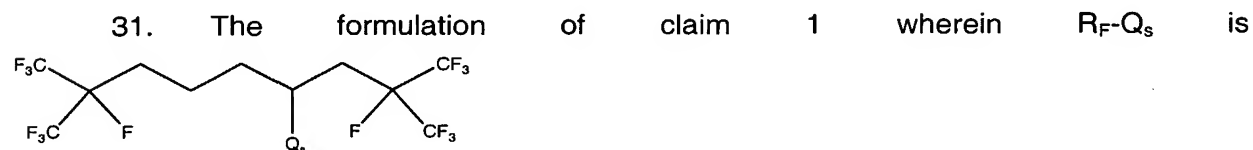
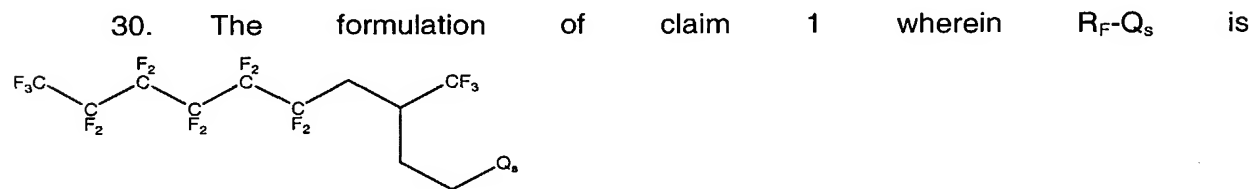
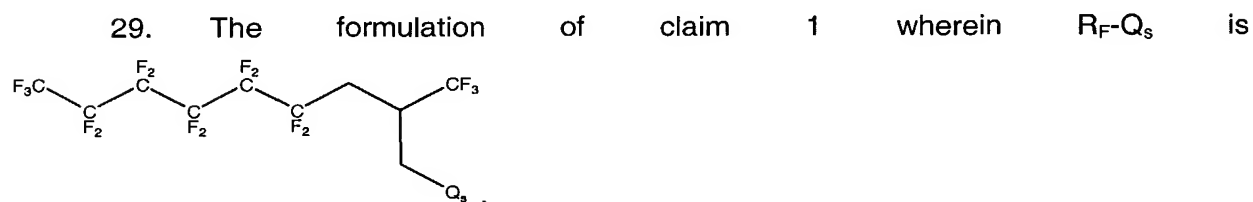
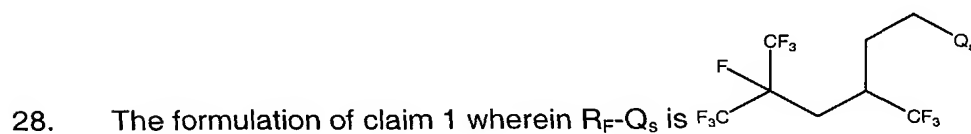
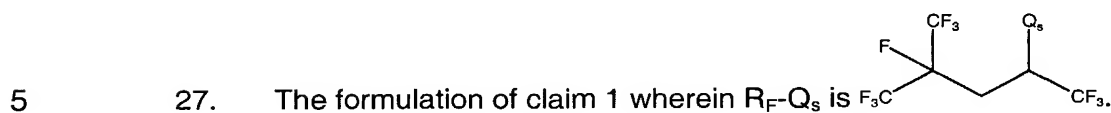
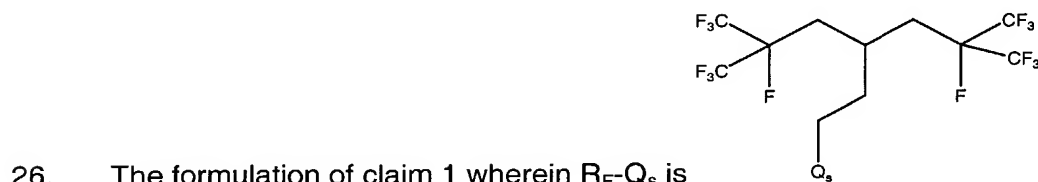
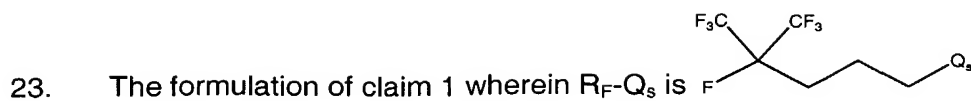


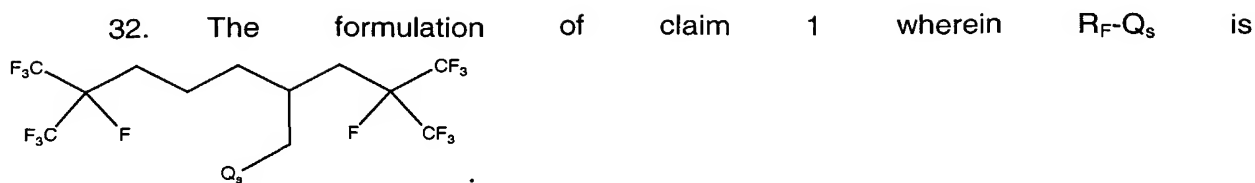
21. The formulation of claim 1 wherein R_F-Q_s is



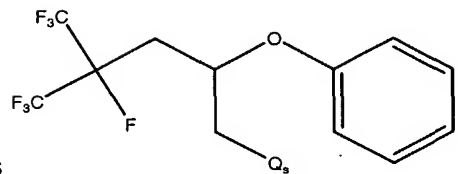
22. The formulation of claim 1 wherein R_F-Q_s is



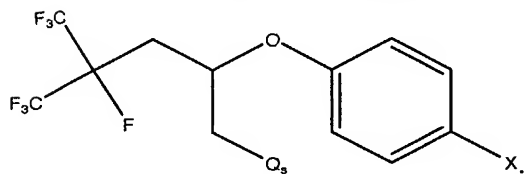




33. The formulation of claim 1 wherein R_F-Q_s is



34. The formulation of claim 1 wherein R_F-Q_s is



35. A process for providing an Aqueous Film Forming Foam formulation to a substrate, the Aqueous Film Forming Foam formulation comprising R_F-Q_s , wherein:
 R_F has a greater affinity for a first part of a system having at least two parts than Q_s ;
 Q_s has a greater affinity for a second part of the system than R_F ; and
 R_F comprises at least two $-CF_3$ groups and at least two hydrogens.

36. The process of claim 35 wherein R_F is hydrophobic relative to Q_s .

37. The process of claim 35 wherein Q_s is hydrophilic relative to R_F .

38. The process of claim 35 wherein R_F is hydrophobic and Q_s is hydrophilic.

39. The process of claim 35 wherein the substrate comprises a liquid.

40. The process of claim 35 wherein the substrate is a part of the system.

41. The process of claim 35 wherein R_F comprises at least one $-CH_2-$ group.

42. The process of claim 35 wherein R_F comprises at least one cyclic group.

43. The process of claim 42 wherein the cyclic group comprises an aromatic group.

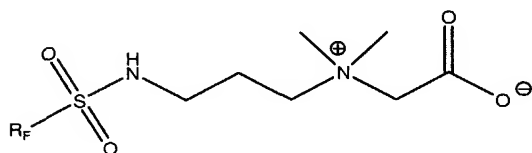
44. The process of claim 35 wherein R_F comprises at least one $(CF_3)_2CF-$ group.

45. The process of claim 35 wherein R_F comprises at least three $-CF_3$ groups.

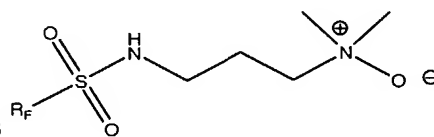
46. The process of claim 35 wherein R_F comprises at least two $(CF_3)_2CF-$ groups.

47. The process of claim 35 wherein R_F comprises at least four carbons and one of the four carbons comprises a $-CH_2-$ group.

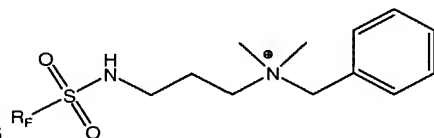
5 48. The process of claim 35 wherein R_F-Q_s is



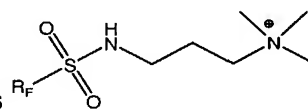
49. The process of claim 35 wherein R_F-Q_s is



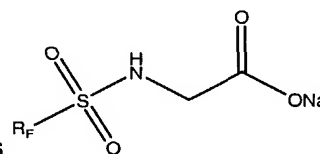
50. The process of claim 35 wherein R_F-Q_s is



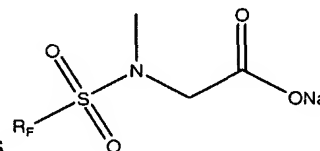
51. The process of claim 35 wherein R_F-Q_s is



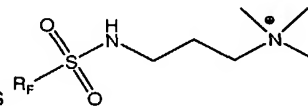
10 52. The process of claim 35 wherein R_F-Q_s is



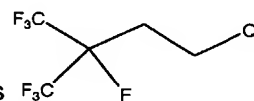
53. The process of claim 35 wherein R_F-Q_s is



54. The process of claim 35 wherein R_F-Q_s is

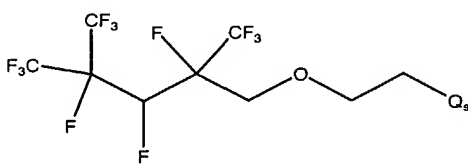


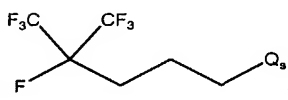
55. The process of claim 35 wherein R_F-Q_s is



56. The process of claim 35 wherein R_F-Q_s is 

57. The process of claim 35 wherein R_F-Q_s is 

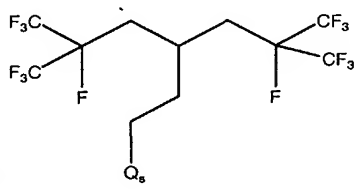
58. The process of claim 35 wherein R_F-Q_s is 

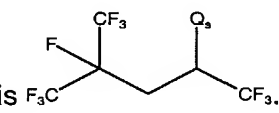
59. The process of claim 35 wherein R_F-Q_s is 

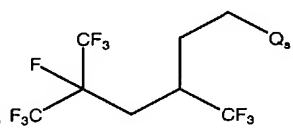
5

60. The process of claim 35 wherein R_F-Q_s is 

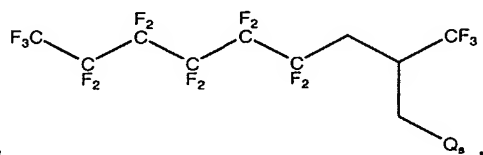
61. The process of claim 35 wherein R_F-Q_s is 

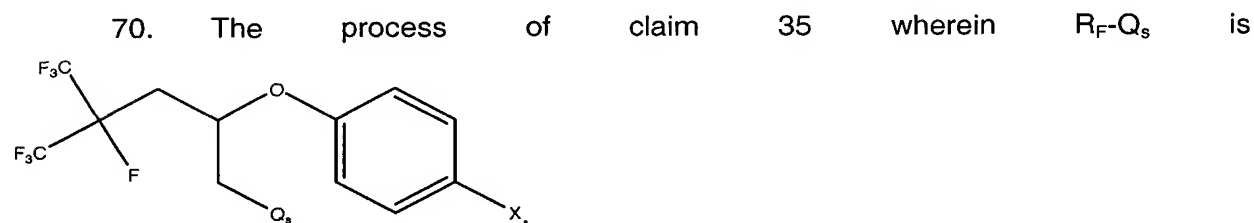
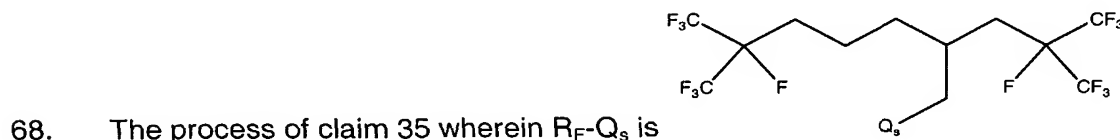
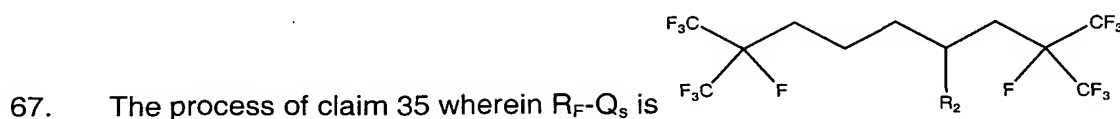
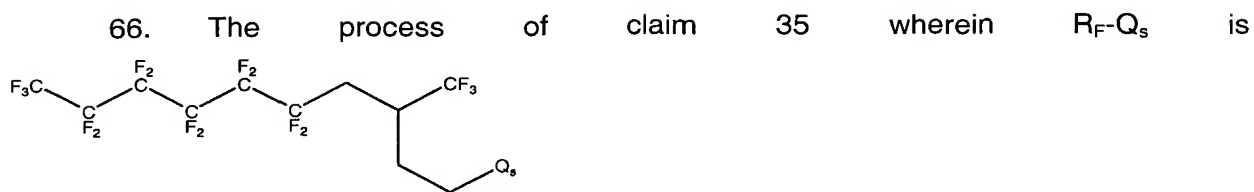
62. The process of claim 35 wherein R_F-Q_s is 

63. The process of claim 35 wherein R_F-Q_s is 

64. The process of claim 35 wherein R_F-Q_s is 

10

65. The process of claim 35 wherein R_F-Q_s is 



71. A foam stabilizer comprising R_F-Q_{FS} , wherein R_F is hydrophobic relative to Q_{FS} , R_F comprising at least two $-CF_3$ groups and at least two hydrogens.

72. The stabilizer of claim 71 wherein R_F comprises at least one $-CH_2-$ group.

73. The stabilizer of claim 71 wherein R_F comprises at least one cyclic group.

74. The stabilizer of claim 73 wherein the cyclic group comprises an aromatic group.

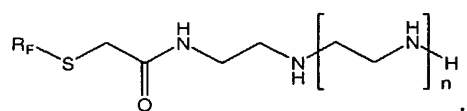
75. The stabilizer of claim 71 wherein R_F comprises at least one $(CF_3)_2CF-$ group.

76. The stabilizer of claim 71 wherein R_F comprises at least three $-CF_3$ groups.

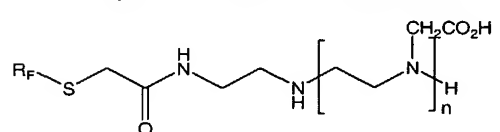
77. The stabilizer of claim 71 wherein R_F comprises at least two $(CF_3)_2CF-$ groups.

78. The stabilizer of claim 71 wherein R_F comprises at least four carbons and one of the four carbons comprises a $-\text{CH}_2-$ group.

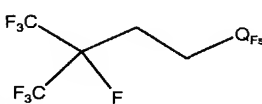
79. The stabilizer of claim 71 wherein R_F-Q_{FS} is



5 80. The stabilizer of claim 71 wherein R_F-Q_{FS} is



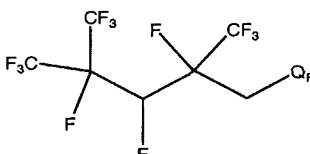
81. The stabilizer of claim 71 wherein R_F-Q_{FS} is



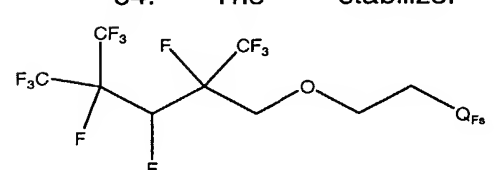
82. The stabilizer of claim 71 wherein R_F-Q_{FS} is



83. The stabilizer of claim 71 wherein R_F-Q_{FS} is



10 84. The stabilizer of claim 71 wherein R_F-Q_{FS} is



85. The stabilizer of claim 71 wherein R_F-Q_{FS} is

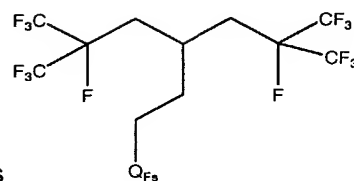


86. The stabilizer of claim 71 wherein R_F-Q_{FS} is

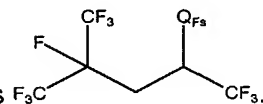


87. The stabilizer of claim 71 wherein R_F-Q_{FS} is

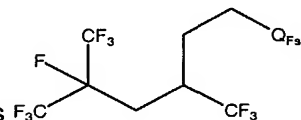




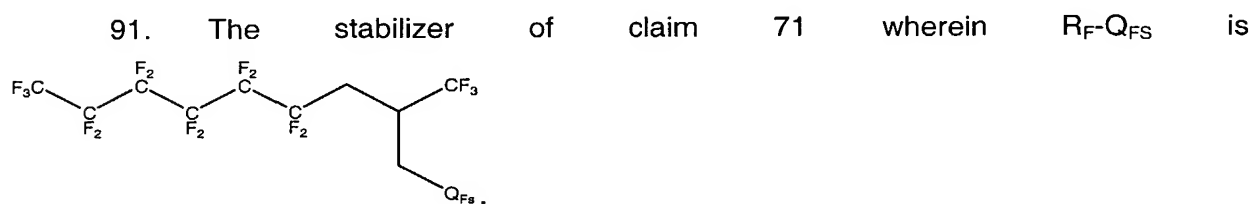
88. The stabilizer of claim 71 wherein R_F-Q_{FS} is



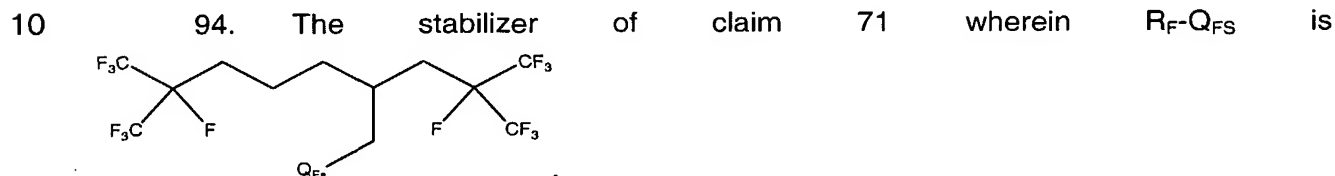
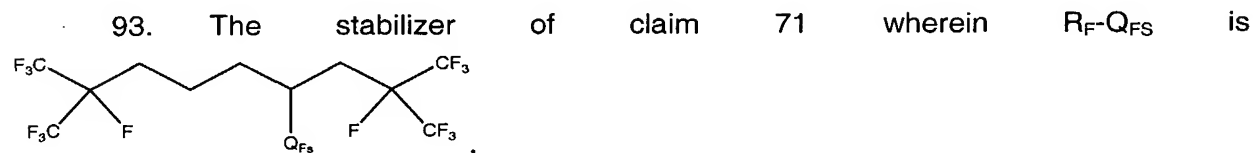
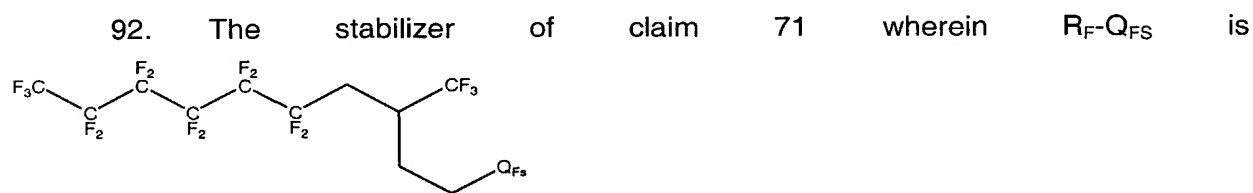
89. The stabilizer of claim 71 wherein R_F-Q_{FS} is



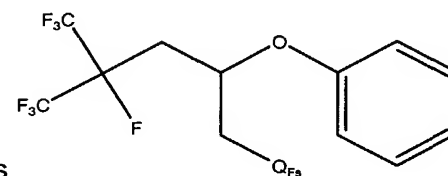
90. The stabilizer of claim 71 wherein R_F-Q_{FS} is



5



10



95. The stabilizer of claim 71 wherein R_F-Q_{FS} is

96. The stabilizer of claim 71 wherein R_F-Q_{FS} is

